Celanese
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CELSTRAN® PA6-GF50-03 AD3019 BLACK

CELSTRAN® Long Fibre

Nylon 6 with 50% long glass reinforcement, heat stabilized

Product information

Resin Identification	PA6-LGF50	ISO 1043
Part Marking Code	>PA6-LGF50<	ISO 11469

Typical mechanical properties

	dry/cond.		
Tensile modulus	17000 / 14000	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	230 / 180	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	1.6 / 1.8	%	ISO 527-1/-2
Flexural modulus	15200 / 12000	MPa	ISO 178
Flexural strength	370 / 280	MPa	ISO 178
Charpy impact strength, 23 °C	76 / 90	kJ/m²	ISO 179/1eU
Charpy impact strength, -30 °C	69 / -	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23 °C	40 / 34	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30 °C	42 / -	kJ/m²	ISO 179/1eA
Poisson's ratio	0.33 / -[C]		

[C]: Calculated

Thermal properties

	dry/cond.		
Temperature of deflection under load, 1.8 MPa	219 / *	°C	ISO 75-1/-2
Temperature of deflection under load, 8 MPa	205 / *	°C	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	14 / *	E-6/K	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	84 / *	E-6/K	ISO 11359-1/-2

Physical/Other properties

	dry/cond.		
Density	1560 / -	kg/m³	ISO 1183

Characteristics

Processing	Injection Moulding
Delivery form	Pellets
Special characteristics	U.V. stabilised or stable to weather

Additional information

Injection molding

Preprocessing

PA6&PA66 drying requirements: 4 hrs. @80° C.
A dehumidifier or desiccant dryer is recommended.

Processing

Celstran can be processed on a standard injection molding unit.
A general purpose metering screw is recommended with a zone distribution of 40% feed, 40% transition, and 20% metering.
A free flowing check ring assembly is recommended.

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Melt Temp: 285-295 °C.
Mold Temp: 85- 95 °C.

Processing Notes

Pre-Drying

CELSTRAN PA should in principle be predried. Because of the necessary low maximum residual moisture content the use of dry air dryers is recommended. The dew point should be =< -30 °C. The time between drying and processing should be as short as possible.

Storage

Note: Material can be over dried and may discolor.

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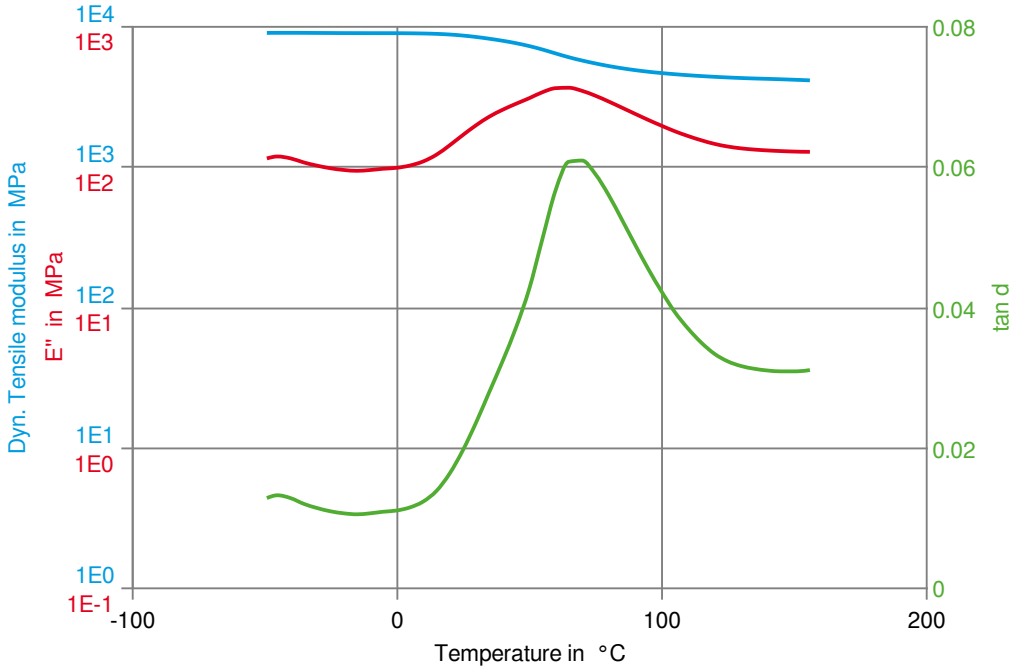
Dynamic Tensile modulus-temperature (dry)



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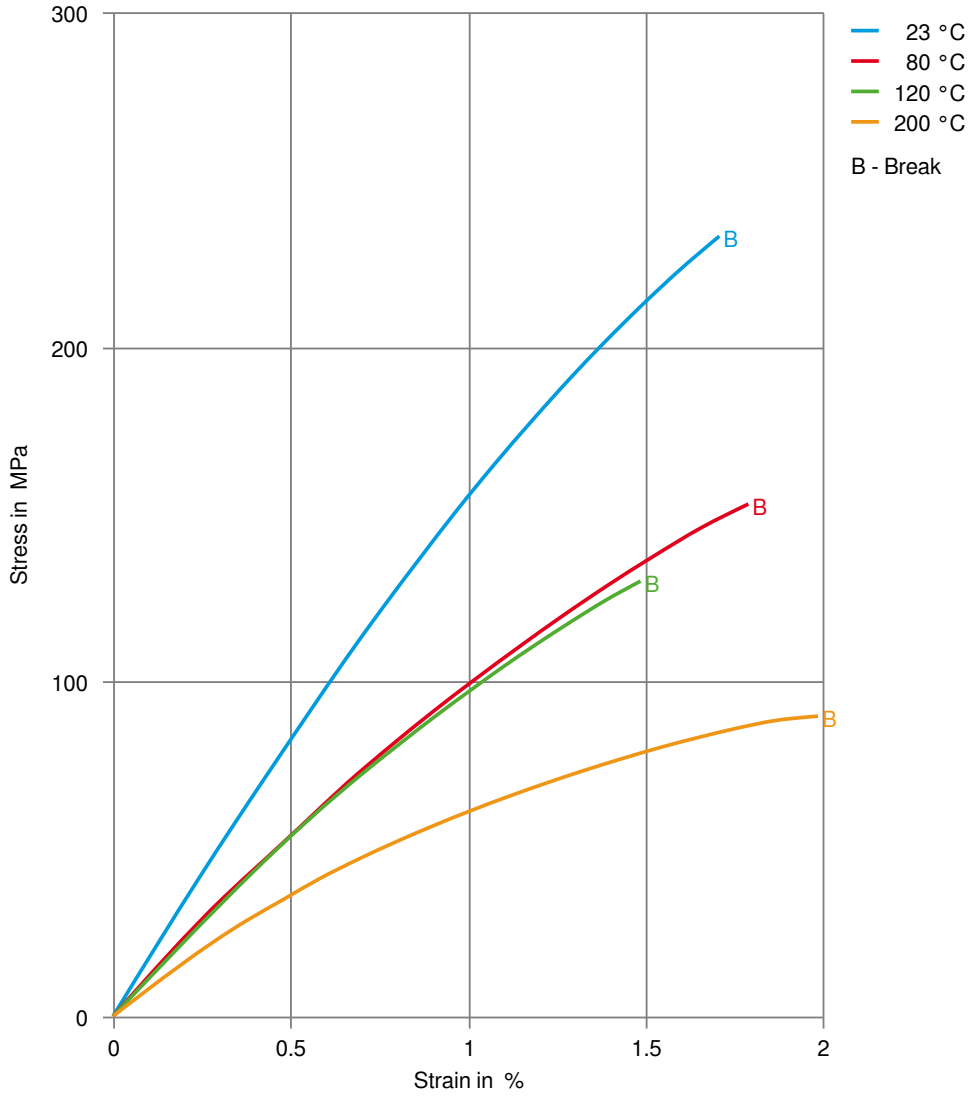
Stress-strain (dry)



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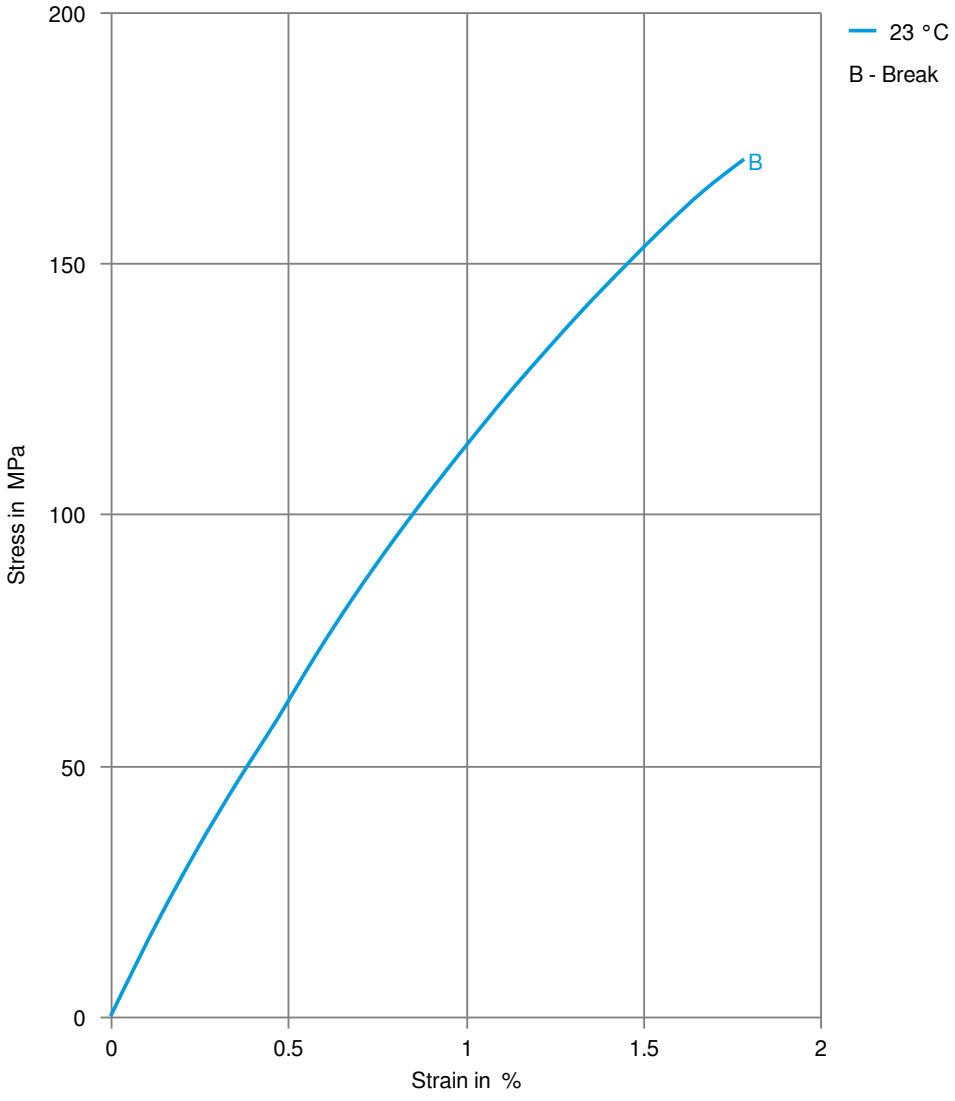
Stress-strain (cond.)



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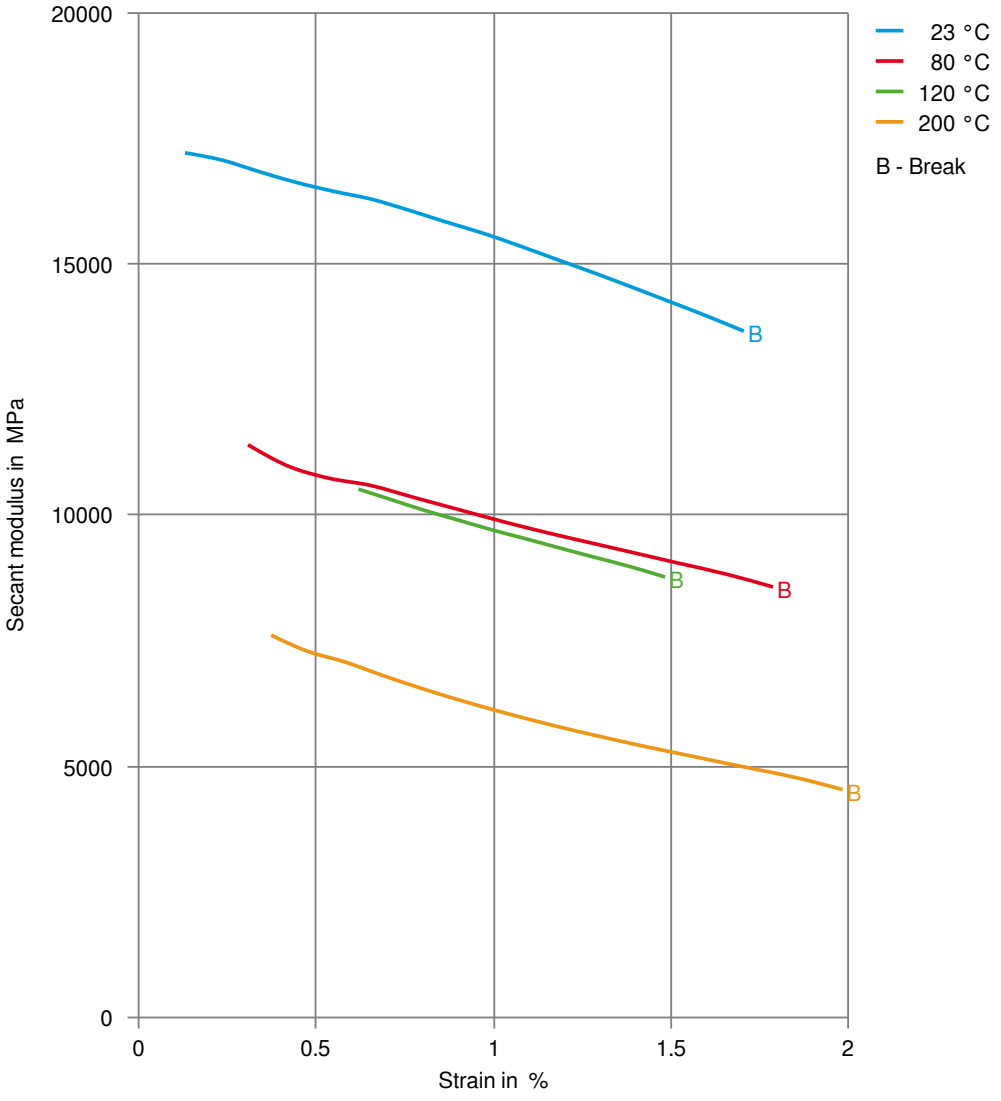
Secant modulus-strain (dry)



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Secant modulus-strain (cond.)